184, 2116, 2191, 1831, 1537, 1532, 171, 2074, 2179 MATERIAL SAFETY, 1839 DATA SHEET

300 LAKESIDE DRIVE, OAKLAND, CALIFORNIA 94643

KACC 5656 (05/85) Front

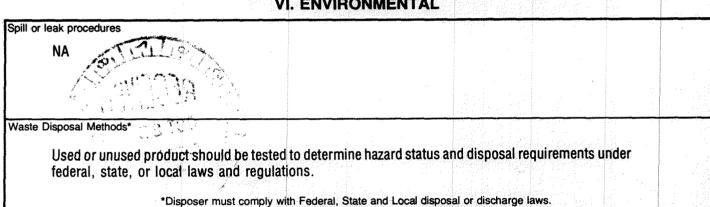
`omnany/Plant				Issue Date	Identification Number	
Kaiser Aluminum & Chemical Cor 300 Lakeside Drive Oakland, California 94643			rporation	June 1, 1985		
Frade Name (Common Name or Synonym) Aluminum Alloys				Emergency Phone Number 41	5-271-5391	
Chemical Name Aluminum (does not include lithium and n			nickel alloye)	Formula . Al	DOT Identification Number	
Aluminum (doe	5 HOLHIGIAA	- Intinuin and i				
			I. INGRI	EDIENTS		
Material or Component BASE METAL	CAS: NUMBER	% COMPOSITION	N BY WEIGHT	1984-85 ACGIH TLV (mg/m³) *	OSHA 1910.1000 TWA (mg/m ³)**	
Aluminum 7429-90-5 80.0-99			9.7	10.0, as metal dust and oxide 5.0, as welding fume	Not established	
Arri	MAX	XIMUM % COMPO	SITION BY WEIGH		OSHA 1910.1000	
ALLOYING ELEMENT	CAS NUMBER	1.0-10.0	1.0-20.0	TLV (mg/m3)*	TWA (mg/m ³) **	
Cobalt, Co	7440-48-4	W, P		0.1	0.1	
Copper, Cu Iron, Fe	7440-50-8 1309-37-1	W W, P	Р	0.2, as fume 5.0, as fume	0.1, as fume 10.0, as fume	
Magnesium, Mg	1309-48-4	W. P	Р	10.0, as tume	15.0, as fume	
Manganese, Mn	7439-96-5	W		1.0, as fume	5.0 Ceiling	
Silicon, Si	7440-21-3		W, P	10.0, as total dust	Not established	
Tin, Sn	7440-31-5	P		5.0, as respirable dust 2.0, as oxide and metal	101 2.07 as marganic compound	
Zinc, Zn	1314-13-2	W, P		5.0, as fume	5.0; as in the	
				/\$ }`	שברבווייב אין	
					RECEIVENCE	
Key:					RECEIVED	
W = Wrought alun	minum (fabricated	i products)	Note: Kaiser Al		RECEIVED 9 Openiations of the alloys shown here.	
Key: W = Wrought alun P = Prime and ing *TLV = Threshold-Lin	got hardener alun	i products) ninum	Note: Kaiser Al addition, #7.	uminum alloys may be complised of all the welding of aluminum alloys may p	RECEIVED 9 Accordations of the alloys shown here. Condee are adjugged listed in Section V	
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NA = Not Applicable

V. HEALTH/SAFETY INFORMATION

Health	Inhalation	Not likely unless may result in dis	s material machined, wel scomfort such as dizzines	ded or remelted. S s, nausea, or dryn	Short te less or i	rm overexposure to v irritation of throat and	velding fi nose.	umes			
	Ingestion	Not likely.			*						
	Skin	Not likely.									
	Eyes May irritate eyes when welding or plasma cutting.										
	Treshold Limit Value See Ingredients Section.										
Fire and Explosion	Flash Point	NA °F	Auto Ignition Temperature	Flammable Limits in Lower NA Upper NA	Air Ex % %	tinguishing Media Dry powder or	sand.				
	Unusual Fire and Explosion Hazards Damp aluminum dust may spontaneously heat with liberation of hydrogen to form explosive air mixtures. SEE ADDITIONAL INFORMATION. Extinguishing Media Not to be Used Do not use water or halo on dust fires.										
ivity	Stability Stable	e 🗌 Unstable	Incompatibility (Materials to Avoid) Anhydrous bromine.								
	Conditions to Avoid See Fire and Explosion Section. SEE ADDITIONAL INFORMATION.										
Re	Hazardous Decomposition Products See Fire and Explosion Section. SEE ADDITIONAL INFORMATION.										

VI. ENVIRONMENTAL



VII. ADDITIONAL INFORMATION

- 1. Halogen acids and sodium hydroxide in contact with aluminum may generate explosive mixtures of hydrogen.
- 2. Finely divided aluminum will form explosive mixtures in air. It will also form explosive mixtures in air in the presence of bromates, iodates, or ammonium nitrate.
- 3. When remelting aluminum scrap, entrapped moisture or the presence of strong oxidizers such as ammonium nitrate could cause an explosion. This applies to the collection of moisture in sow cavities as well. Moisture must be driven off prior to remelting.
- 4. Do not touch cast aluminum metal or heated aluminum product without knowing metal temperature. Aluminum experiences no color change during heating. If metal is not and touched, burns can result.
- 5. Aluminum powder must be packaged and shipped as a Flammable Solid, UN1396.
- 6. Hard alloy ingots in the 2000 and 7000 series must be stress-relieved to prevent explosion when sawed.
- 7. The welding of aluminum alloys may generate carbon monoxide, carbon dioxide, ozone, nitrogen oxides, infra-red radiation and ultra-violet radiation.

The information in this MSDS was obtained from sources which we believe are reliable. However, the information is provided without any repre-

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